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(71) Applicant *(for all designated States except US)*: **SOLVAY (SOCIETE ANONYME)** [BE/BE]; Rue du Prince Albert, 33, B-1050 Brussels (BE).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **STREBELLE, Michel** [BE/BE]; Rue Sombre, 84, B-1150 Brussels (BE). **PETITJEAN, André** [BE/BE]; Avenue des Liserons, 17, B-1020 Brussels (BE).

(74) Agents: **JACQUES, Philippe** et al.; SOLVAY (Société Anonyme), Intellectual Property Department, Rue de Ransbeek, 310, B-1120 Brussels (BE).

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(54) Title: CATALYST AND GAS PHASE METHOD USING SUCH A CATALYST

(57) Abstract: The invention provides a catalyst containing active elements including copper deposited on alumina containing at least 0.03 g of titanium, expressed in metal form, per kg of alumina and use thereof in gas hase reactions, such as the oxychlorination of ethylene to 1,2-dichloroethane. This catalyst is suitable for maintaining a constant oxygen content in the tail gases and hence in the recycled gases. The invention further pertains to the use of an alumina containing at least 0.03g titanium, expressed in metal form, per Kg of alumina, as catalyst support and as catalyst diluent. In an example a catalyst containing $CuCl_2$, $MgCl_2$, KCl and LiCl deposited on alumina containing 1.13g of titanium, expressed in metal form, per Kg of alumina was used for the oxychlorination of ethylene to 1,2-dichloroethane in a fluidized bed reactor.

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